

# THE REVIEW'S WEEKLY MINING NEWS PAGE

## COLLEY TO QUIT OLD DOMINION; GOING TO COAST

Smelter Superintendent Well Known Here; Was Chemist in Douglas in 1905

H. H. Colley, who has been superintendent of the reduction works of the Old Dominion company in Globe for six years, and who was formerly located in Douglas, as assayer and chemist of the Copper Queen, will leave the service of the former company on the first of next year. It has been announced by W. G. McBride, the general manager.

Well Known Here  
The retiring superintendent is well known in Bisbee and Douglas, having become connected in 1905 in Douglas. He went to Globe as superintendent of the reduction works in 1916.

McBride said that Colley had made

## Superior & Boston Plans Winze Into Old Dominion Vein

GLOBE, Dec. 9.—Carrying forward the plan for the development of the ore body in the North, or Old Dominion vein, encountered several weeks ago in a crosscut at the 800-foot level of the Superior and Boston Copper company's mine, the management is having a winze sunk from the crosscut, which has reached a depth of 27 feet. The ore has been continuous in the winze and has averaged about three per cent copper and six to eight ounces silver to the ton.

The copper occurs in the forms of glance, cuprite and bornite. Neither wall of the vein has yet been exposed in the winze which is being sunk vertically, but as the vein pitches slightly toward the north the winze soon should cut the south wall. The vein where exposed on the 800-foot level is fifteen feet wide.

Two crosscuts are being driven on the 1000-foot level to cut the Old Dominion vein, one east of the McGaw fault and the other west of that fault. "We expect to find the ore east of the McGaw fault oxidized," President T. R. Drummond said yesterday, "and probably sulphide in the vein west of the fault."

Shipments to the International smelter are holding up very well, averaging about 33 cars of ore a month. The ore runs about 4 per cent copper and 9 to 10 ounces silver.

The ground below the 1200-foot level is being explored with a diamond drill. The drill hole yesterday had reached a depth of 160 feet.

a splendid record while with the company and that his departure would be regretted very much by his friends and associates in the district.

Colley has made no definite plans for the future but he expects to go from here to California where he will make trips to different parts of the world.

Long Experience  
He has been a metallurgist for more than twenty-five years, receiving his first experience with the American Smelting and Refining company at their refinery at Argentin, Kas.

Upon leaving the University of Missouri he was chemist for the New Jersey Zinc company, later being promoted to the position of chief chemist and testing engineering for that company at their present plant in north Chicago.

Colley will be succeeded by D. L. Forrester, present mill superintendent for the Old Dominion it was announced.

## More Than 800 Men Are Now Employed for New Cornelia

Announcement was made recently that the New Cornelia copper mine at Ajo is now employing more than 800 men. The mine is in full production and tons of copper ore are being hauled away daily.

The new additions, the mill building and the power plant extension, are nearly completed and the work is being rushed to an early finish. The company officials reported that excellent progress was being made in cutting the underground extension at the well.

More than 225 men are being employed in the new construction work. Several hundred Mexican wood-haulers are helping with the New Cornelia flotation plant which is expected to be completed in a few months. The total number of men on the New Cornelia payroll is approximately 815, the officials said.

## NEW CONCENTRATOR UNIT AT MORENCI IS COMPLETE; WILL INCREASE OUTPUT 700 TONS

(Copper Era)  
CLIFTON, Dec. 9.—The work done in No. 6 concentrator at Morenci during the past month consisted in installing a new concentrator unit capable of treating an additional 700 tons of ore daily under the conditions of the new fine grinding and two-stage flotation flow sheet which was developed in the experimental mill at Morenci.

No additional coarse grinding equipment for reducing the ore from run-of-mine size to six-mesh size has been installed, as machines already in place have more than sufficient capacity for the additional work required.

The work necessary for taking care of the additional 700 tons started with the installation of grinding equipment for reducing the ore from six-mesh to a minus 48-mesh size, at which latter size the treatment of the ore by the flotation process is started. For this purpose one of the two large Marcy ball mills has been removed from the Clifton concentrator and set up in No. 6 concentrator. On account of its exceedingly heavy weight the removal, transportation and setting up of the mill proved to be the most arduous task of the reconstruction work.

Installed alongside the mill is a Dorr rake classifier, the duty of which is to return to the mill all ore which has not been ground to the required degree of fineness during its passage through the mill. The classifier also discharges to the flotation system over a wire overflow all material which is already ground fine enough.

The above installation is for the purpose of reducing the ore to a size which will allow it all to pass through a screen having 48 openings to the linear inch, known as 48-mesh. Before the ore receives final treatment, it is found necessary to reduce its size to a minus 65-mesh size and another ball mill and classifier installation is required to accomplish this work. Ball mills of sufficient capacity to accomplish this work were already in place but for the overflowing of a product finer than 65-mesh, a special form of classifier is necessary to work in conjunction with the fine grinding

ball mills. This special classifier was constructed in the form of a shallow wooden tank 14 feet in diameter and three feet deep. The tank is equipped with a central shaft which reaches almost to the bottom of the tank and which carries four radial arms equipped with rakes at its lower end. These rakes being revolved, carry settled coarse material to the center of the bottom of the tank where it is removed through a plug discharge opening and pumped back to the mill for further grinding. The ore which is already ground fine enough overflows ten perimeters of the tank, is collected in a launder which encircles the tank and is then sent to the final flotation system for treatment.

The installation of a Dorr rake classifier for unwatering the feed to the Marcy ball mill before mentioned, was also necessary, better grinding results being secured when the feed to the ball mills contains a minimum of water. A large number of launders have been installed through which the ore will be transported from one machine to the following one, and a considerable amount of work was performed in clearing up old equipment to make room for the new.

Since a large part of the flotation process equipment has been idle for the past 18 months, it was found necessary to do a great deal of renovating in this department, going over the tanks and furnishing them with new canvas blankets. Two direct connective Krogh sand pumps have been installed to handle flotation tailing material and a Wilfley pump to handle the plug discharge of the tank classifier is to be installed.

The 130-foot diameter Dorr thickening tank used for recovering tailing water has also been repaired as it will be necessary to put this tank into commission again when the tonnage is increased. No very heavy concrete work has been needed, the heaviest work of this kind being the foundation piers for the Marcy ball mill. The work will be completed by November 30th with the exception of a few details which are awaiting supplies as yet undelivered.

## COPPER SHARES IN DEMAND AT SHORT SESSION

Closing Quotations Generally Show Few Changes From Previous Day's Prices

NEW YORK, Dec. 9.—Special selling, buying operations in some stocks with profit taking and short selling in others gave today's half holiday stock market an irregular appearance after the first batch of buying orders had been disposed of. Closing prices generally showed few material changes.

Motor, copper, low priced oils, sugar and equipment shares were most in demand among the standard shares, but all suffered from closing realizing sales. Steels were reactionary during most of the session and railroad shares were again comparatively inactive.

National Lead was one of the individual features, being pushed up 5 1/2 points, a new top for the year, on speculative expectation of a stock dividend in the near future.

Unconfirmed reports of a merger of the Baldwin and Lima Locomotive companies was held partly responsible for the early strength of those stocks, but profit-taking reduced their net gains to fractions. Among the few industrials which managed to maintain their gains of a point or more were American Ice, American Tobacco "A" and "B", General Cigar, Davison Chemical, Famous Players, Maryland Oil, National Biscuit, Newstock, Westinghouse Air Brake, Worthington Pump and Hump motor, the last named touching 26 a new top.

In the railroad group St. Paul issues improved fractionally, despite the acute weakness of the bonds of that road. Seaboard Air Line advanced one point and Reading dropped 7-8, other changes being unimportant. Days sales totaled 464,000 shares.

Foreign exchange business was quiet with closing quotations as a rule slightly below those of yesterday. Norwegian exchange was an exception, advancing six points to 19.08, a new high record for the year.

The Canadian dollar went to a further discount, being quoted at 33-2 of a cent below the American dollar. Demand sterling held around 4.57. The clearing house statement

## World's Greatest Mine Undertakings Listed by Journal

Answering a query from a subscriber as to what are the six "greatest" mining engineering projects in the world today an editor of the Engineering and Mining Journal, Press of New York remarks that it is exceeding hazardous to give a list of selections that can readily become a subject of controversy, since there are many enterprises great not only with regard to size of operation but also with respect to the particular difficulties that had to be overcome. He points out the following however:

The Utah Copper Co., in Bingham Canyon, Utah, a gigantic copper mine operated by steam shovels; it is one of the most successful copper mines in the world, despite the fact that the copper content of the ore runs generally less than 25 lb. per ton.

The Chile Copper Co., whose operations are at Chuquibambilla, Chile. Another gigantic low-grade copper mine worked on a huge scale, and which successfully employs leaching of the copper in the ore.

Sulphur mining in Louisiana and Texas, remarkable for the unique method of recovering the sulphur from great depths—the Frasch process. Superheated steam is forced into pipes leading to the sulphur deposit, the sulphur is melted and is pumped to the surface.

The iron mines of the eastern Mesabi Range, which are operated by open-pit methods, where more material is to be moved than in digging the Panama canal.

The rich copper mines of the United States at Haut Kautz, which

showed a decrease of \$29,113,000 in loans discounts and investments, an increase of \$22,260 in the reserve of member banks in the Federal Reserve bank, and a decrease of \$66,562,000 in net demand deposits. Excess reserve totaled \$23,146,410, an increase of \$30,618,600 over the previous week, which showed a deficit of \$6,472,000.

Liberty Bonds  
NEW YORK, Dec. 9.—Liberty bonds closed: 3 1/2% \$100.34; 2nd 4% \$98.36; 1st 4 1/2% \$99.10; 2nd 4 1/2% \$98.50; 3rd 4 1/2% \$98.96; 4th 4 1/2% \$98.84; Victory 4 1/2% (uncalled) \$100.34; Victory 4 1/2% (called) \$100.00; U. S. Treasury 4 1/2% \$99.74.

Cotton Market  
NEW YORK, Dec. 9.—The general cotton market closed with a net advance of 10 to 16 points.

are developed in the heart of Africa where many unusual difficulties were encountered.

The gold mines of the Rand, in South Africa, may also be classed as among the world's foremost mining operations. Not only mining done from great depths, 5,000 to 7,000 ft. below the surface but labor conditions and metallurgical problems have had to be overcome.

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Good printing costs more than cheap, sloppy work, naturally. A good job printer earns more than a poor workman; it takes more time to set a good job than it does to throw it together; it takes the pressman longer to make it ready and run it off. Then the paper stock costs more.

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## Central Pharmacy

## Market News

NEW YORK  
Furnished by L. J. OVERLOCK, BROKER  
Correspondent Loans & Grains

American Can	72	Abundant	19-16
American Sugar	72	Calumet Jerome	12
American Locomotive	72	Consolidated Copper	27 1/2
American Smelter	54	Dundee	40
American Wool	95 1/2	Erupcion	2 1/2
Baldwin	62 1/2	Greco Monster	11 1/2
Estimotech B	62 1/2	Mutual Oil	15 1/2
Baltimore & Ohio	43	Mesabi	15 1/2
B. & O. T.	58	Night Hawk	12
California Petroleum	33 1/2	Ray Hercules	13 1/2
Central Leather	33 1/2	Tom Reed	20 1/2
Corn Products	120 1/2	Telluride	20 1/2
Crucible	65 1/2	United Eastern	15 1/2
Cuba Cane	11 1/2	Verde Central	15 1/2
Famous Players	14	Verde Combination	10
General Motors	34 1/2	Verde Extension	27
Goodrich	14 1/2	Verde Jerome	1 1/2
Indiana Alcohol	14 1/2	Shea	60
International Nickel	11 1/2	Wolverine & Arizona	2
Marine	31 1/2		
Marine Pfd	31 1/2		
Mexican Petroleum	28 1/2		
Mexican Seaboard	16 1/2		
New York Central	25 1/2		
Pacific Oil	17 1/2		
Pan American	29 1/2		
Penn	46 1/2		
Pierce Arrow	12 1/2		
Pure Oil	25 1/2		
Reading	78 1/2		
Republic	17 1/2		
Replote	21 1/2		
Rock Island	22 1/2		
Southern Pacific	26 1/2		
Sinclair	32 1/2		
St. Paul	22 1/2		
Studebaker	133 1/2		
Texas Oil	48 1/2		
U. S. Food	52 1/2		
U. S. Rubber	52 1/2		
U. S. Steel	103 1/2		
Vanadium	21 1/2		
Wells	6		

NEW YORK COPPERS		OTHER CURBS	
Anaconda	18 1/2	Abundant	12 1/2
Bute	43	Calumet Jerome	12
Cerro de Pasco	23 1/2	Consolidated Copper	27 1/2
Chino	23 1/2	Dundee	40
Chile	26 1/2	Erupcion	2 1/2
Green Cananea	37	Greco Monster	11 1/2
Inspiration	33 1/2	Mutual Oil	15 1/2
Kennecott	35 1/2	Mesabi	15 1/2
Magma	27 1/2	Night Hawk	12
Miami	27 1/2	Ray Hercules	13 1/2
Nevada Consolidated	14	Tom Reed	20 1/2
Ray Consolidated	13 1/2	Telluride	20 1/2
Seneca	8 1/2	United Eastern	15 1/2
Shattuck	7 1/2	Verde Central	15 1/2
Utah	62	Verde Combination	10

BOSTON COPPERS		OTHER CURBS	
Arizona Commercial	7 1/2	Abundant	12 1/2
Calumet & Arizona	54 1/2	Calumet Jerome	12
Calumet & Hecla	28 1/2	Consolidated Copper	27 1/2
Copper Range	37	Dundee	40
Davis-Daly	3	Erupcion	2 1/2
East Butte	8 1/2	Greco Monster	11 1/2
Hank	2 1/2	Mutual Oil	15 1/2
Mohawk	57	Mesabi	15 1/2
New Cornelia	16	Night Hawk	12
Overhead	28	Ray Hercules	13 1/2
Superior & Boston	2	Tom Reed	20 1/2
		Telluride	20 1/2
		United Eastern	15 1/2
		Verde Central	15 1/2
		Verde Combination	10
		Verde Extension	27
		Verde Jerome	1 1/2
		Shea	60
		Wolverine & Arizona	2

GRAIN	
May Wheat	120 1/2
July Wheat	109 1/2
December Wheat	122 1/2

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